ANOLIS VICARIUS, NEW SPECIES, RELATED TO *A. GRANULICEPS*

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ABSTRACT

A single specimen of a small anole is described from the vicinity of Dabeiba, Antioquia, Colombia. It is provisionally regarded as related to *A. granuliceps* Boulenger but differs in smooth ventrals, larger dewlap and in pattern.

In 1981 JUAN MANUEL RENJIFO and VLADIMIR CORREDOR collected a single small anole along a trail near the rio Amparrado between the towns of Frontino and Dabeiba. Inmediately distinctive because of a bold shoulder ocellus, on close comparison it appeared to be related to *Anolis granuliceps* Boulenger, known from the Choco of western Colombia down into northwestern Ecuador. As the allopatric representative of the latter species it may be known as.

Anolis vicarius, new species. Figs. 1-4

Holotype: ICN 5916.

Type locality: Heights of the Cordillera Occidental between the towns of Frontino and Dabeiba, rio Amparrado, on the trail between Pegadorcito and Amparrado, Department of Antioquia, Colombia.

Description. Head. Head scales small to minute; anteriorly distinctly keeled, smooth posteriorly. Seventeen scales across snout between second canthals. Frontal depression with minute scales several times smaller than those lateral or anterior to them. Eight postrostrals. Anterior nasal in contact with sulcus between rostral and first supralabial.

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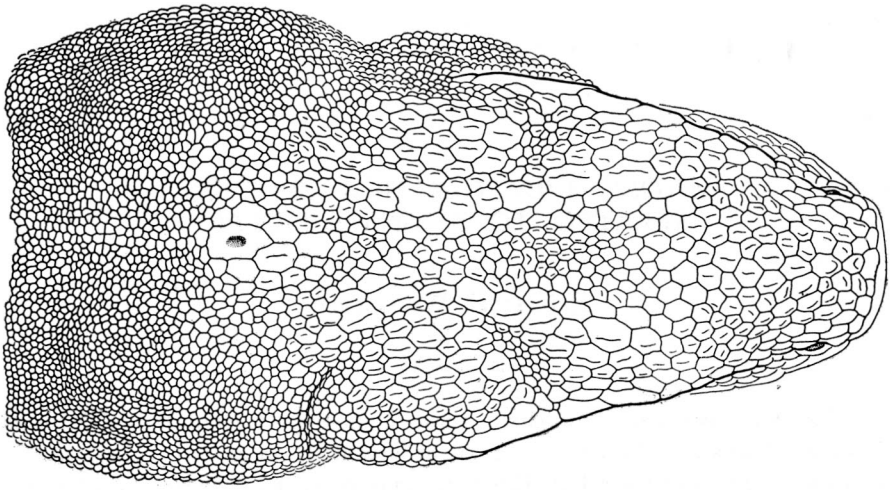

FIGURA 1. *Anolis vicarius* Holotype, ICN 5916. Dorsal view of head.

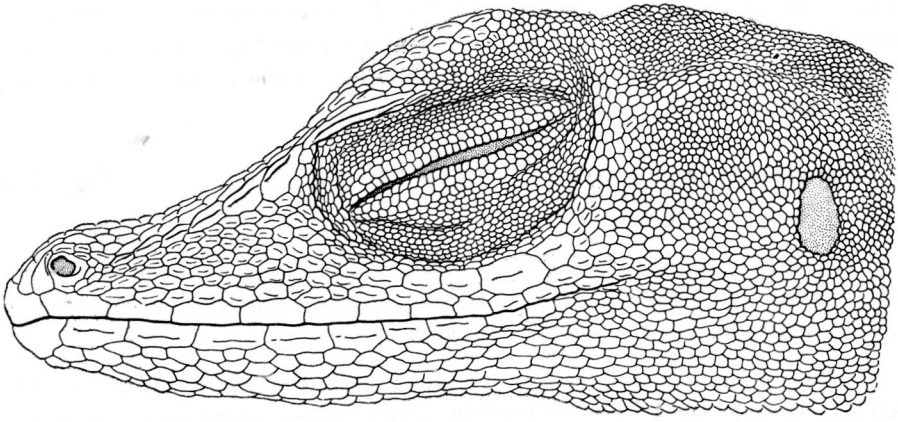

FIGURA 2. *Anolis vicarius* Holotype, ICN 5916. Lateral view of head.

Four scales between the supraorbital semicircles, the middle two rows slightly smaller than the lateral rows. The supraocular disk moderately distinct, with more than 20 sharply unicarinate scales flanked laterally and posteriorly by granular or subgranular scales, but 3 or 4 scales in the lateral anterior corner of the supraocular area as large as or larger than some scales of the disk.

Two obliquely overlapping elongate superciliaries continued posteriorly by granular scales. Canthus distinct. Eight or nine canthals, the second largest, decreasing regularly in size anteriorly. Eight or nine loreals below the second canthal, the lowest row largest .

Temporals and supratemporals granular. An intertemporal double row vaguely indicated by slight enlargement of the scales. Interparietal smaller than ear; six enlarged scales surrounding it, smallest posteriorly, larger laterally largest anteriorly and anterolaterally, but granding into smaller scales toward the supraorbital semicircles. Six scale on each side separate interparietal from the semicircles.

Posterior suboculars in contact with supralabials. Eight supralabials to below center of eye.

Mental almost completely divided, in contact with eight scales between the infralabials. No differentiated sublabials.

Trunk. Middorsals bluntly keeled and somewhat larger than flank scales and grading into the latter which are minute, conical and surrounded by very minute granules. Ventrals much larger, smooth, swollen, separated by naked skin.

Dewlap. Large, extending onto anterior third of belly. Lateral scales small, swollen, in single rows, larger than ventrals, narrowly separated by naked skin. Edge scales imbricate, smooth, much larger than ventrals.

Limbs. Scales of upper arm unicarinate in front, minutely granular behind, of lower arm unicarinate in front, posteriorly smaller but still unicarinate. Supradigitals of hand multicarinate. Scales of anterior thigh unicarinate, of posterior thigh minutely granular. Scales of tibia unicarinate in front and behind. Supradigitals of foot multicarinate. Sixteen lamellae under phalanges ii and iii of fourth toe.

Tail (broken) slightly compressed, all scales unicarinate. Enlarged postanal not evident. Large bifurcate hemipenes.

Size. 47 mm snout-vent length.

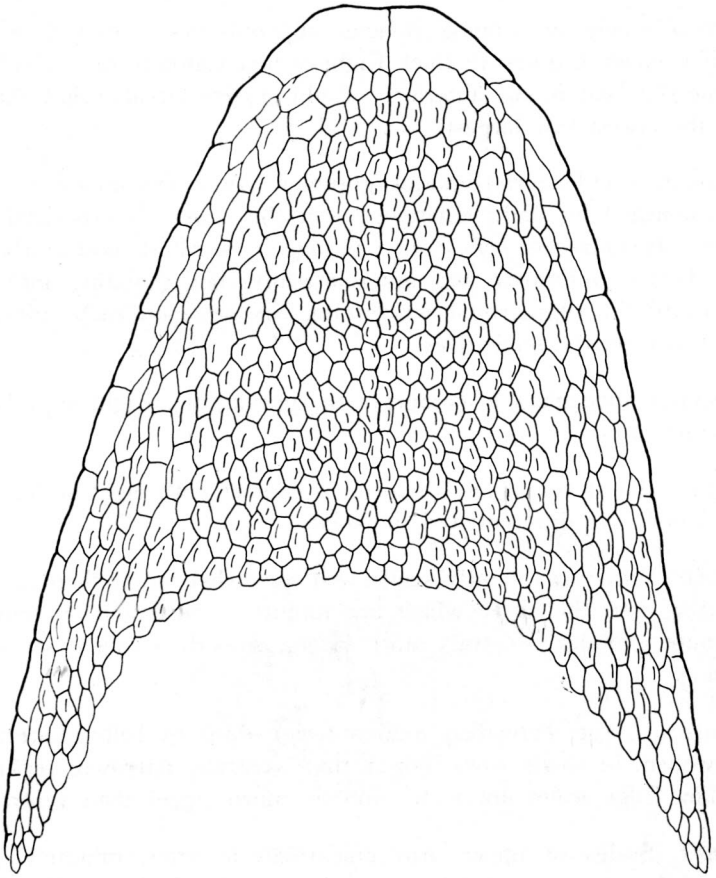

FIGURA 3. *Anolis vicarius* Holotype, ICN 5916. Ventral view of head.

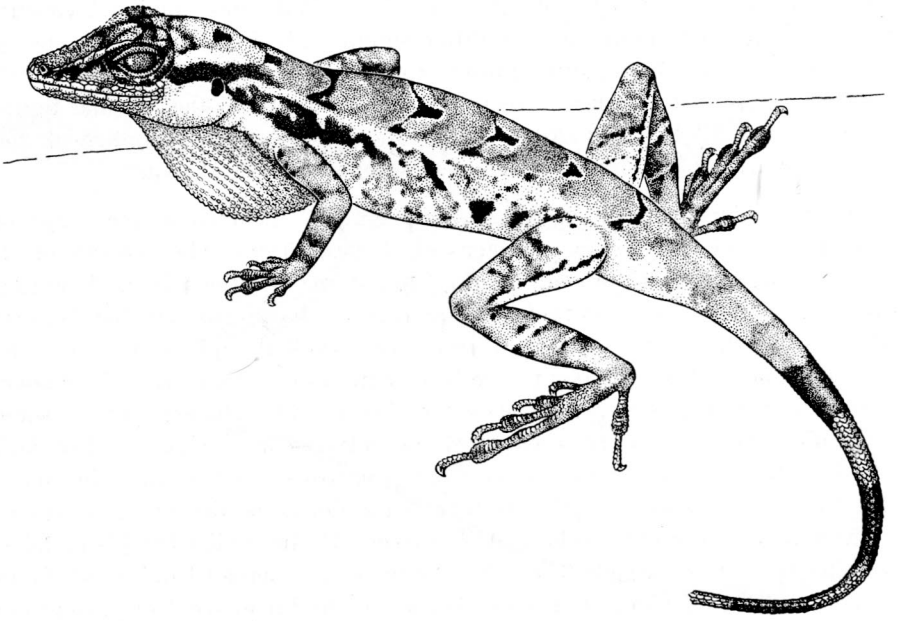

FIGURA 4. *Anolis vicarius* Holotype, ICN 5916. Lateral view of whole animal to show pattern.

Color. Pattern is well displayed in Figure 4. As preserved the background color is brown with lighter spots and vermiculations of gray and darker markings that are nearly black. There is no information on color in life. Habitat and ecology are unreported.

Comparisons. Relatively few anoles have head scales as smalls as those seen in *A. vicarius* and fewer still are small species. In western Colombia and western Ecuador, among named species, only *A. granuliceps* Boulenger 1898, *A. breviceps* Boulenger 1913 and *A. lynchi* Miyata require comparison.

PETERS (1959), after examining the types in the British Museum, synonymized *A. breviceps* with *A. granuliceps*. With this opinion I concur. The two nominal species do not differ significantly in scale counts nor in pattern and size. By a lapsus unusual for Boulenger, the description of *A. breviceps* reported a series of ventral v-shaped spots. As the original figure shows (plate CVII, BOULENGER, 1913) and PETERS (1959) confirmed, the figured syntype of *A. breviceps* shows vertebral, not ventral spots.

The scale counts of *A. vicarius,* are entirely included in the range of Colombian and Ecuadorian specimens of *A. granuliceps*. The ventrals of *A. vicarius,* however, are smooth at the highest manifications of a dissecting microscope those of *A. granuliceps* are usually sharply keeled, but because these scales are very small and somewhat swollen, high power may be necessary to establish the point. The bold pattern of *A. vicarius* is distinctive, especially the ocellus above the shoulder. The dorsal v-shaped spots of some Colombian *granuliceps* are accentuated and enlarged in *A. vicarius*. The dark band posterior to the eye in *A. vicarius* is narrower and touches the upper border, passing above a ligth line that is the dorsal border of the irregular pattern that contains the ocellus. In *A. granuliceps* the similar band is broader, reaches the ear at variable levels, but continues as a broad band which fades out behind the shoulder. The lower border of the broad band of *granuliceps* may be darker and sharply set off against the inmaculate areas below. The tails is broadly and boldly banded in *A. vicarius,* not so in *A. granuliceps*. *A. granuliceps* is a species with muted and inconspicuous patterns; *A. vicarius,* in contrast, has conspicuous, even vivid patterns.

The dewlap of *A. granuliceps* is small, reaching to th eaxilla, that of *A. vicarius,* while only moderate, extends well behind the axilla. MIYATA (1985) reports the hemipenes of *A. granuliceps* as small and not bifurcate; those of *A. vicarius* are large and bifurcate. Miyata also (1980, unpublished thesis) records *granuliceps* as occurring only below 550 m elevation; the type locality of *A. vicarius* is above 800 m.

There is variation within the *granuliceps* complex and there may be other describable populations, but *A. vicarius* is quite distinct from the

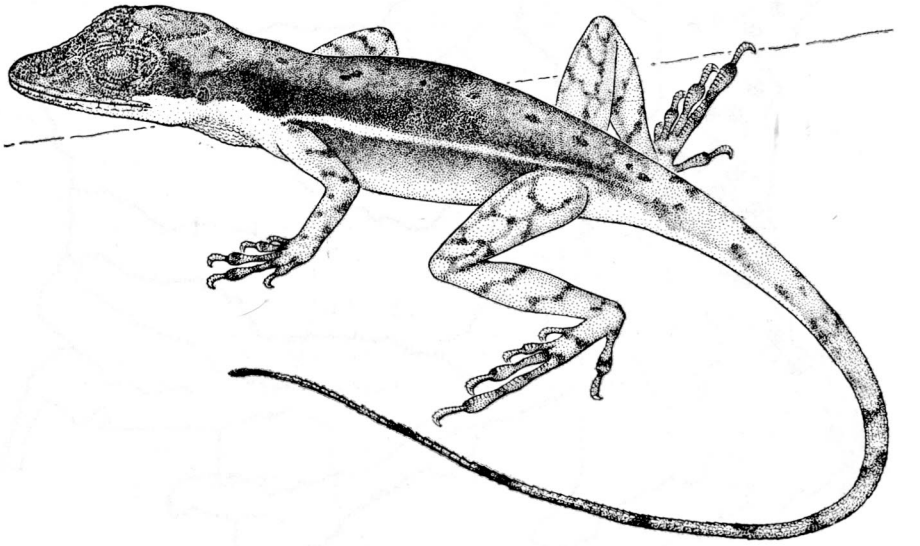

FIGURA 5. *Anolis granuliceps,* MCZ 124809, from Caño Docordo, between Currupi and Noanama, Río San Juan. Lateral view of whole animal to show pattern.

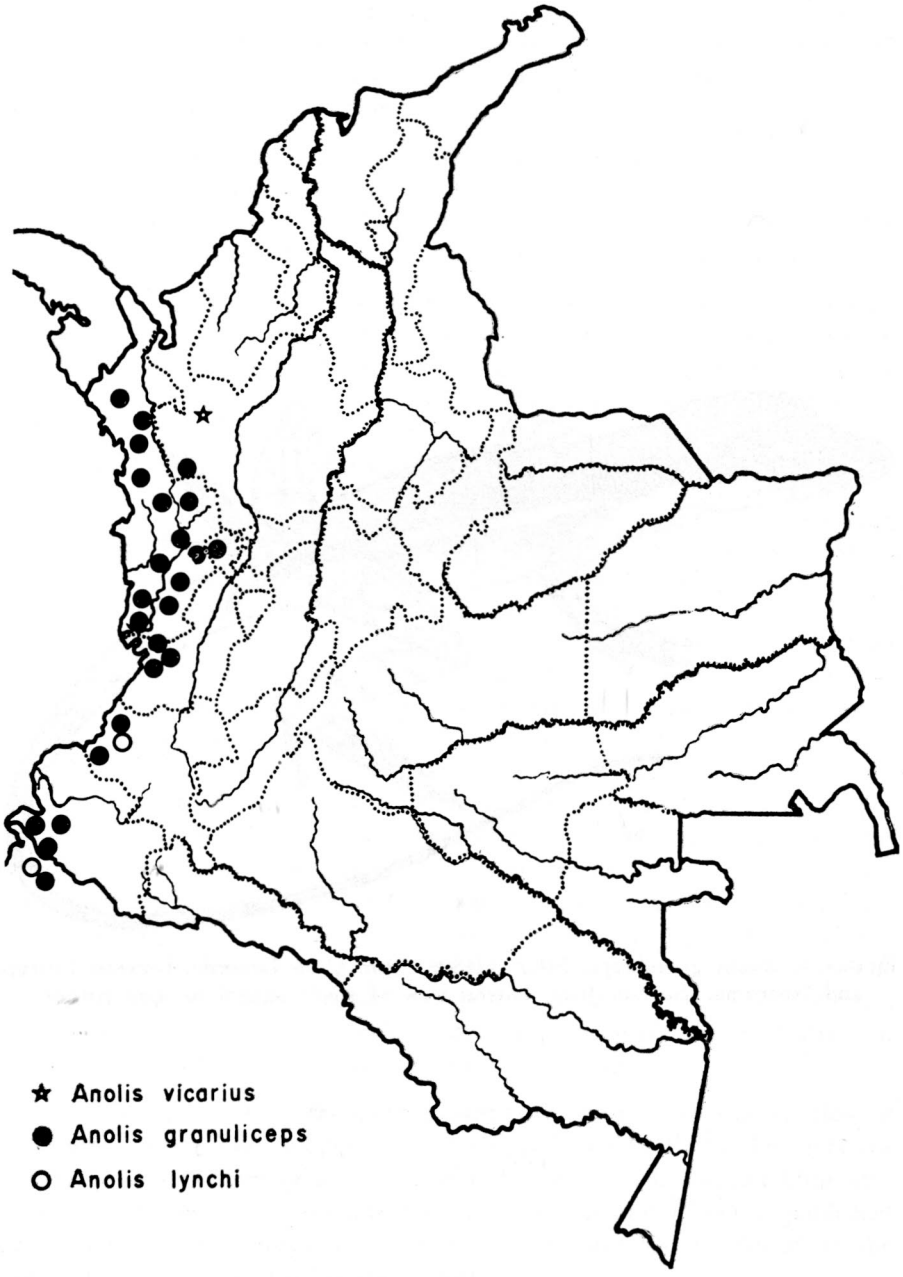

FIGURA 6. Map of the distribution of *A. granuliceps* and *A. vicarius*. Prepared by *Stephen Ayala*.

widespread and relatively uniform western Colombian, northwestern Ecuadorian populations twice named by Boulenger.

A. lynchi, with very similar and indeed even smaller head scales and a dewlap of moderate size, is probably a larger species (to 61 mm rather than ca 50 mm). In *A. lynchi* the supraoculars are tiny an donly a few minimally enlarged; those of *A. vicarius,* like those of *A, granuliceps,* are medially very distinchly enlarged. The ventrals of *A. lynchi,* like those of both. *A. vicarius* and *A. granuliceps,* are small and swollen but, like those of *A. granuliceps* and unlike those of *A. vicarius,* they are distinctly keeled. The patern of *A. lynchi* lacks all trace of the shoulder ocellus or the postorbital nape bar of *A. vicarius.* In fact, the resemblances between. *A. lynchi* and *A. vicarius* are clearly superficial, a matter of general small scale size.

The hemipenes of *A. lynchi* and *A. vicarius* are in both species large and bifurcate, but very different in detail - those of *A. vicarius* short and stout, those of *A. lynchi,* in contrast strikingly elongate.

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